

“Improving ecological conditions will take the strong commitment of communities, individuals and all levels of government to ensure this interconnected system is restored and remains healthy in the future.”

— CAROL ANN WEHLE  
EXECUTIVE DIRECTOR

continued from front



Red mangrove trees provide an important habitat for fish in an estuary ecosystem.

provide measurable and meaningful improvements to the health of Lake Okeechobee and the estuaries. Overall, LOER will improve water quality, expand water storage, enhance lake health and facilitate land acquisition.

The five “Fast-Track” projects are located in the Taylor Creek/Nubbin Slough Basin

north of Lake Okeechobee. (See site map and project descriptions on facing page.) This basin offered the best location in terms of accessing relatively large amounts of phosphorus for treatment and where sufficient land is in District ownership. Together with Florida’s Lake Okeechobee Protection Plan and the Comprehensive Everglades Restoration Plan, LOER expedites construction of these projects during the next four years.

The South Florida Water Management District will construct the 4,000-acre Taylor Creek reservoir ahead of schedule and build an additional 3,500 acres of stormwater treatment area to capture and clean water flowing into the lake. Slated for completion by 2009, the construction projects will provide 48,000-acre feet of additional water storage, reduce harmful discharges to coastal estuaries and prevent up to 75 metric tons of phosphorus from flowing into the lake each year.

To help achieve a better balance among water management objectives – flood control, water supply and navigation, and the competing needs of the lake, estuaries and greater Everglades ecosystem – the U.S. Army Corps of Engineers is already working to revise the lake regulation schedule by December 2006. The ultimate goal is to achieve lower lake water levels and reduce high volume discharges to the estuaries.

In addition to the “Fast-Track” construction projects and lake level revisions, the remaining components of the LOER plan are broad-based changes to provide short-term relief and long-term protection. These interagency initiatives will change how we govern land-use changes, acquire lands for restoration and protection, and reduce impacts from fertilization and land application of wastewater treatment plant residuals.

#### WHY NOW?

LOER is a response to identified water resource needs, legislative directives and demands of Florida citizens. The 2004 hurricane season generated unprecedented rainfall, dumping up to 13 million gallons of water each minute into Lake Okeechobee

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## After Hurricane Wilma

### Environmental, infrastructure impacts assessed



Masses of vegetation and debris block the S-3 pump station along Lake Okeechobee’s south shore. Note the brown water color in the foreground.

When Hurricane Wilma blew through South Florida on Oct. 24, it may have created a “bump in the road” for Everglades restoration, if initial assessments of environmental damage prove true. The areas of most concern are Lake Okeechobee and the Stormwater Treatment Areas (STAs), which remove excess nutrients from surface water flowing into the Everglades.

#### LAKE OKEECHOBEE

Just like last year’s multiple hurricane slam, Hurricane Wilma’s high winds again stirred up sediments in Lake Okeechobee, turning its waters an unappealing shade of brown. These sediments do not settle quickly, and they contain nutrients that have accumulated for decades due to stormwater runoff into the lake. When flood control requires discharge of lake waters into the St. Lucie River to the east and Caloosahatchee River to the west, the estuaries of these waterways can be harmed by the high-nutrient discharges. Monitoring crews in the field continue to assess storm impacts to lake water quality and lake vegetation.

“District staff was evaluating benefits associated with a planned lake recession to provide a better balance between the health of the lake and estuaries,” said Chip Merriam, District deputy executive director of water resources. “But having an additional hurricane come

over and stir up the lake again as well as adding almost 2 feet of water so far make it very difficult to achieve that goal at this point.”

#### STORMWATER TREATMENT AREAS

South of Lake Okeechobee are six constructed and managed wetlands, each thousands of acres in size. Aquatic plants in these wetlands remove phosphorus, a nutrient commonly found in fertilizers but known to cause harm in the Everglades ecosystem. Hurricane Wilma’s track took it directly across these STAs. The storm’s wind field grew as it crossed the state, bringing the most damage to the easternmost treatment wetlands.

District scientists and operations managers are assessing impacts to the STAs and, in some cases, vegetation has blown up onto levee banks. Other impacts include damage to vegetation, lack of power, including downed power lines across treatment areas and access roads, levee damage and pump station damage.

#### CANAL DEBRIS

Hurricane Wilma’s winds pushed trees, trampolines, swing sets and all types of debris into many of the canals within the District’s expansive 16-county region. This debris can block the flow of water in the District’s primary flood control system. Initial damage assessment began immediately after the storm and will continue until all District canals and facilities are inspected. Debris removal is well under way in Miami-Dade and Broward counties, as well as in Lake Okeechobee.

For the latest information about impacts from Hurricane Wilma, visit the “After Hurricane Wilma” website at [www.sfwmd.gov](http://www.sfwmd.gov)



## Lake Okeechobee & Estuary Recovery Plan Components

#### • Lake Okeechobee Fast-Track Projects

LEAD AGENCY: South Florida Water Management District

#### • Revise Lake Okeechobee Regulation Schedule

LEAD AGENCY: U.S. Army Corps of Engineers

#### • Establish Total Maximum Daily Loads (TMDLs) for Lake Okeechobee tributaries

LEAD AGENCY: Florida Department of Environmental Protection

#### • Implement mandatory fertilizer Best Management Practices (BMPs)

(revised application rates for agriculture; low phosphorus for urban use)

LEAD AGENCY: Florida Department of Agriculture and Consumer Services

#### • Implement revised Environmental Resource Permit (ERP) criteria for new development for the Upper and Lower Kissimmee, Lake Okeechobee, St. Lucie Estuary and Caloosahatchee Estuary Basins

LEAD AGENCY: South Florida Water Management District

#### • Identify options for storage and/or disposal of excess surface water

LEAD AGENCY: South Florida Water Management District

#### • Implement growth management programs to encourage innovative land use planning to facilitate acquisition of lands for public works

LEAD AGENCY: Florida Department of Community Affairs

#### • Elimination of land applications of domestic wastewater residuals

LEAD AGENCY: Florida Department of Environmental Protection

#### • Full implementation of the Lake Okeechobee Protection Program and the CERP Lake Okeechobee Watershed Project

LEAD AGENCIES: South Florida Water Management District, Florida Department of Environmental Protection, Florida Department of Agriculture and Consumer Services and U.S. Army Corps of Engineers